

I. Amendments To The Claims

1. - 61. (previously canceled)

62. (currently amended) An isolated polypeptide **fusion protein of IFNAR2** comprising **(1)** the sequence of SEQ ID NO: 2 **and (2) a human immunoglobulin-constant domain**, wherein the affinity of said polypeptide **fusion protein** for IFN- β is synergistically increased **at least 25 to 100-fold** compared to wild type human IFNAR2.

63.-65. (previously canceled)

66. (canceled)

67. (currently amended) The polypeptide **fusion protein** of claim 62, wherein the affinity to IFN- β is at least 30 pM.

68. (currently amended) The polypeptide **fusion protein** of claim 62, wherein the affinity to IFN- β is at least ~~25 to 100-fold~~ **50-fold** higher than the affinity of the wild type polypeptide.

69. (canceled)

70. (currently amended) The polypeptide **fusion protein** of claim 62, wherein the polypeptide **fusion protein** is covalently bound to IFN.

71. (currently amended) The polypeptide **fusion protein** of claim 70, wherein the IFN is IFN- β .

72. (previously canceled)

73. (previously canceled)

74. (previously canceled)

75. (canceled)

76. (currently amended) A DNA encoding the polypeptide **fusion protein** of claim 62.

77. (currently amended) The DNA of claim 75, wherein the ~~polypeptide~~
fusion protein further comprises a signal peptide sequence.

78. (previously presented) The DNA of claim 76, wherein the signal peptide
sequence is that of human growth hormone.

79. (previously presented) A vector comprising the DNA according to any one
of claims 75-77, wherein the vector is capable of expressing the polypeptide in a
prokaryotic host cell or eukaryotic host cell.

80. (previously presented) A host cell comprising the vector of claim 78.

81. (currently amended) A method of producing an IFNAR2 mutant
~~polypeptide~~ **fusion protein** comprising:

- (a) cultivating the cell of claim 79 under conditions that cause the
expression of the ~~polypeptide~~ **fusion protein**; and
- (b) isolating the ~~polypeptide~~ **fusion protein**.

82. (currently amended) A composition comprising the ~~polypeptide~~ **fusion**
protein of claim 62.

83. (previously canceled).

84. (previously canceled)

85. (previously canceled).

86. (previously canceled).

87. (withdrawn) The composition of claim 82, further comprising IFN β .

88. (previously presented) A method of augmenting the anti-cancer, immune
modulating or anti-viral properties of IFN β comprising administering to a patient in need
thereof a therapeutically effective amount of the composition of claim 82.

89. (previously presented) The method of claim 88, wherein the method is for
augmenting the immune modulatory activities of IFN β in an autoimmune disease

selected from multiple sclerosis, rheumatoid arthritis, myasthenia gravis, diabetes, lupus and ulcerative colitis.

90. (withdrawn) The method of claim 88, wherein the method is for augmenting the anti-cancer activities of IFN β in a disease selected from hairy cell leukemia, Kaposi's sarcoma, multiple myeloma, chronic myelogenous leukemia, non-Hodgkins's lymphoma and melanoma.

91. (withdrawn) The method of claim 88, wherein the method is for augmenting the anti-viral properties of IFN β in a disease selected from chronic granulomatous disease, condyloma acuminatum, juvenile laryngeal papillomatosis, hepatitis A and chronic infection with hepatitis B and C viruses.

92. (withdrawn) The composition of claim 87, wherein said polypeptide of claim 62 and said IFN β are covalently linked.

93. (previously presented) The composition of claim 82, further comprising an IFN antagonist.

94. (previously canceled).